

## REVIEWS

*The Handbook of Insurance-Linked Securities*. Edited by PAULINE BARRIEU and LUCA ALBERTINI (John Wiley & Sons, 2009. 362pp. ISBN: 97804707433836)

The Handbook of Insurance-Linked Securities provides an in-depth coverage of the rapidly evolving market in Insurance-Linked Securities. Edited by Pauline Barrieu and Luca Albertini, this book is the product of wide ranging contributions from the market practitioners, advisors, and academics that have played a part in the Insurance-Linked (ILS) Securities sector.

The book is organised into three parts: Parts I and II cover the specific characteristics of the Non-Life and Life Securitisation markets, respectively, whilst Part III focuses on the regulatory and tax considerations that affect how and why ILS deals are structured in a particular way.

Parts I and II lead the reader on an informative journey through the respective non-life and life securitisation markets. Both begin with an introduction to the key features of each market, with subsequent chapters exploring the intricacies of Insurance-Linked transactions from the perspectives of the various market participants. Naturally, this begins by looking through the eyes of the cedant, so we can begin to understand the motivations for such deals. Other chapters delve into the role of the rating agencies and rating methodologies; risk modelling; and legal considerations. And, last but not least, the book takes a look at the needs of the very necessary investors, whose increasing appetite has allowed the insurance-linked market to grow massively over the past decade.

Both parts finish by looking at some of the specific examples of ILS deals: sidecars and catastrophe bonds on the non-life side; longevity securitisation, mortality cat bonds, EV and XXX securitisations on the life front. My particular interest sits on the life side of the fence — specifically, longevity — and I was pleased to see contributions from some of the pioneers in this area.

Part III, a collection of three chapters on Tax and Regulatory Considerations, starts with two chapters on the tax treatment of ILS from a UK and US perspective, and goes on to look at the regulatory and solvency capital issues influencing the market, albeit with a distinctly European (Solvency I/II) focus. I found this book excellent for a variety of reasons.

As a handbook, it does exactly what it says on the tin. In the past, I have read numerous mathematical papers on the subject of ILS which, having done a good job of presenting the main actuarial theory, left me wanting in terms of a real practical understanding of the nuts and bolts that make these

transactions hang together. This book will fill in those gaps, leaving the reader with an appreciation of how these deals come about, the rating, legal and tax considerations that determine the structure of a transaction, and what is required for successful completion. I found the case studies, from some of the key players in the market, particularly useful in consolidating some of the understanding derived from the earlier chapters.

Another thing I liked about this book is that it is written to be accessible. As an example, my knowledge is relatively limited in the tax and legal aspects of ILS deals, but I managed to find my way through these chapters without too much trouble. But that isn't to say that the book lacks depth — on the contrary, there's more than sufficient detail to keep the not-so-novice reader's interest. To this end, the editors should be congratulated for bringing together so many opinions from such a wide variety of backgrounds — accountants, tax professionals, lawyers, actuaries, bankers, and academics — whilst keeping the right level of focus.

I feel this book will serve as an invaluable reference source to those currently working in the sector, those looking to move into ILS, and for students seeking concrete examples to give some context to the theory. A worthy addition to your bookshelf.

JUSTIN GRAINGER

*Insurance Risk and Ruin.* By DAVID C. M. DICKSON (Cambridge University Press, 2005. 229pp. ISBN: 0521846404)

This is a clear, concise and well written text-book on two daunting actuarial areas of risk models and ruin theory. A background in elementary probability and distribution theory is sufficient without any requirement of probability measure theory or stochastic process. In just 228 pages, it covers both the classical and modern insurance risk and ruin theory completely with full proofs and derivations of numerous recursive formulae, numerous worked examples, and 75 end-of-chapter exercises with outline of solutions.

The book can be read as four parts. First part covers the basics consisting Chapters 1-3. Second part, first focus of the book, covers risk models consisting Chapters 4-5. Third part, second focus, covers ruin theory consisting of Chapters 6-8. Fourth part covers the application of risk and ruin theory consisting Chapter 9.

Chapter 1 — Probability distributions and insurance applications

The chapter starts by presenting the important discrete and continuous distributions then goes on to concept of mixed distributions which may be new to actuarial students. It then covers proportional and excess of loss reinsurance. The chapter ends with recursive formulae for probability function.